amendment and the following remarks.

The Examiner indicates that claim 5 is objected under 37 CFR 1.75(c), claim 1 being objected to because of the informalities, and claim 2 is objected under 35 U.S.C. § 112. The Examiner also indicates that claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by prior art Schmidt (U.S. Pat. No. 5,558,589), claim 3 being rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt '589 as applied to claim 2.

In response to the Examiner's indication, claims 1 to 5 have been amended as set forth above. The amendments to claim 1 are supported by the descriptions: at a low-speed ratio such as the second drive operation and the third drive operation, on page 11 line 8 to line 20 including the above amendments (*), on page 13 line 22 to line 25, and on page 27 line 4 t line 16; at high-speed ratio such as the fifth drive operation, on page 15 line 8 to page 16 line 15.

(:*) The above amendment in PAGE 11 is made based on incorporation by reference; descriptions of [0026] to [0027] of JAPANESE PATENT NO. Hei 11 – 220333 filed on June 29, 1999 (Publication No.2001-0010361 published on January 1, 2001). Please note that the numbers and names using in the present invention and the reference are different from each other, for example, the "first" and "second" electric motor/generator are named reversely.

Schmidt discloses a two-mode, compound-split, electro-mechanical vehicular transmission (10) which comprises an internal combustion engine (14), an input shaft (12), an output shaft (52), a first planetary gear sub-set (22), a second planetary gear sub-set (24), a first motor/generator (88), and a second motor//generator (90). In this transmission, the first planetary gear sub-set (22) has an inner gear member (28), corresponding to the first rotatable member, to establish a low reduced speed ratio when it is braked,

and the second planetary gear sub-set (24) has an inner gear member (36), corresponding to the second rotatable member, to establish an over drive speed ratio when it is braked, which is the same construction as the powertrain of the present invention.

The inner gear member (36) in the transmission of Schmidt, however, is always connected to the second motor/generator (90) through a transfer gear member (70), a first connecting gear member (72), and a drive gear (102) and connected to the output shaft (52) at a low-speed ratio, while in the present invention the sun gear (32) of the second planetary gear set (30) in FIGs. 1 to 4, corresponding to the second rotatable member, is connected to the output shaft (14) and free from the second electric motor/generator (54) at a low-speed ratio.

This difference at the low-speed ratio brings in that the powertrain according to the present invention can obtain torque on the output shaft larger than Schmidt to drive medium- and heavy- duty vehicles such as trucks and commercial vehicles at the low speed ratio.

The reason is as follows: The planetary gear sets divide engine torque inputted to them according to a torque splitting ratio shown in a table below. This shows that the output-shaft driving torque ratio is larger in the powertrain of the invention than Schmidt. Therefore, driving torque from the engine through the planetary gear sets drives mechanically the output shaft larger in the powertrain of the invention than Schmidt.

POWERTRAIN	Electricity-generating torque ratio	output-shaft driving torque ratio
Schmidt	$(\alpha 1/\alpha 2)/(1+\alpha 1+\alpha 1/\alpha 2)$	$(1+\alpha 1)/(1+\alpha 1+\alpha 1/\alpha 2)$
The present invention	$-\alpha 1$	$1+\alpha 1$

where $\alpha 1$ is a teeth-number ratio of the first sun gear to the first ring gear of the first planetary gear (sub-)set, and $\alpha 2$ is a teeth-number ratio of the second sun gear to the second ring gear of the second planetary gear (sub-)set.

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